**CMSC 113: Computer Science I**

**Final Exam Practice Problems**

1. Consider the following method. What will it print when called as meth1(5,12)?

public void meth1(int a, int b)

{

for(int i = a; i < b; i++)

{

System.out.println("1. " + i);

i++;

System.out.println("2. " + i);

}

}

1. Write a function maxDigit that takes a positive int and returns the maximal digit of that number. So, maxDigit(123) returns 3 and maxDigit(5280) returns 8.

Write the function both iteratively (using a loop) and recursively (without using a loop).

1. What will be printed if we run meth2()?

public void meth2()

{

int[] nums = new int[3];

nums[0] = 8;

nums[1] = 3;

nums[2] = 4;

int[] others = meth3(nums);

for(int i = 0; i < nums.length; i++)

{

System.out.println(nums[i]);

}

for(int i = 0; i < others.length; i++)

{

System.out.println(others[i]);

}

}

public int[] meth3(int[] stuff)

{

for(int i = 0; i < stuff.length; i++)

{

System.out.println(stuff[i]);

}

int[] bag = new int[2];

stuff[0] = 10;

bag[0] = stuff[1] - 1;

bag[1] = stuff[2] + 2;

return bag;

}